

APPARATUS AND METHOD FOR SUPPRESSING INTERNAL  
COMBUSTION IGNITION ENGINE EMISSIONS

ABSTRACT OF THE DISCLOSURE

A method of reducing emissions from a large, medium speed fuel injected diesel engine of the type used on locomotives subject to transient modes of engine operation in which the engine is accelerated or increased loads are applied. The method comprises: monitoring at least one operating parameter of the diesel engine; determining, based on such operating parameter, whether the diesel engine is in a transient mode; and controlling a timing of fuel injection to cylinders of the engine, to retard the timing when the diesel engine is in a transient mode relative to the timing of fuel injection when the diesel engine is not in a transient mode of operation. An electronic fuel injection system comprising: an engine monitor; a controller in communication with the engine monitor and a diesel engine; and wherein the controller is configured to retard a fuel injection to the diesel engine when the diesel engine is in a transient mode relative to the timing of fuel injection when the diesel engine is not in a transient mode of operation.